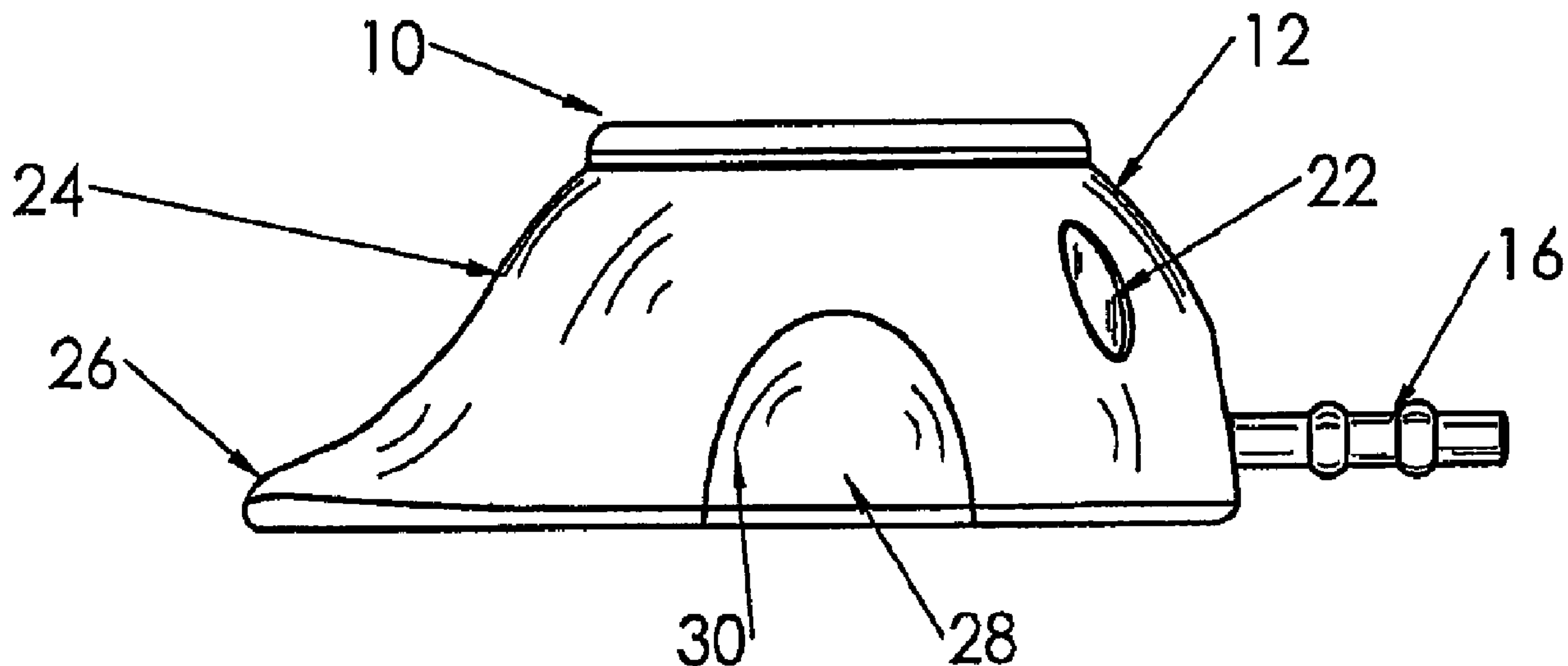




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(54) **Titre : ENSEMBLE ORIFICE D'ACCES VEINEUX AYANT DES SURFACES DE POUSSEE**
(54) **Title: VENOUS ACCESS PORT ASSEMBLY WITH PUSH SURFACES**



(57) **Abrégé/Abstract:**

A venous access port assembly (10) having a housing (12), a septum (14), a discharge stem (16) at a distal end thereof for connection to a catheter (50), and an interior chamber (18). The housing includes a pair of recesses (28) along both sides thereof between the distal end and a proximal port end (24), where the recesses facilitate pushing the assembly by the practitioner into a subcutaneous pocket (104) of a patient (100) for implantation into the pocket.



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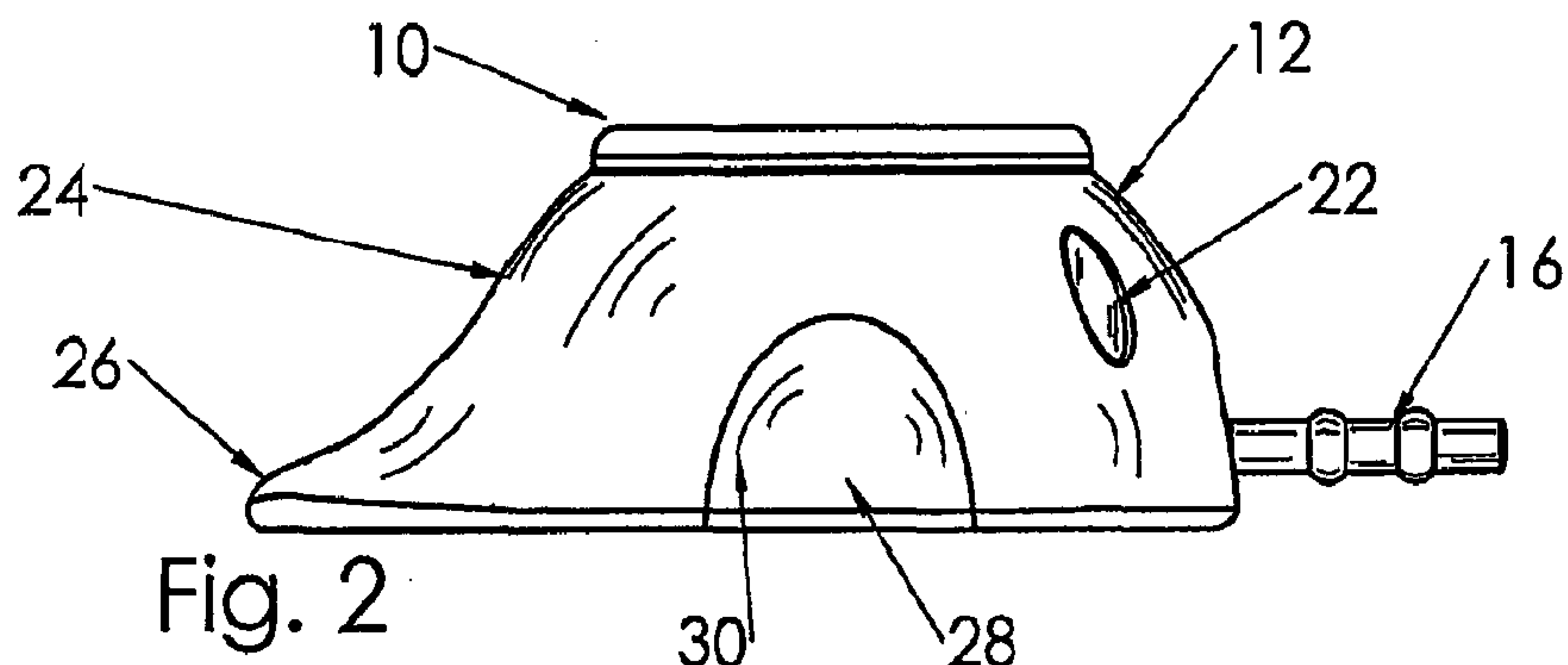
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(54) Title: VENOUS ACCESS PORT ASSEMBLY WITH PUSH SURFACES



(57) Abstract: A venous access port assembly (10) having a housing (12), a septum (14), a discharge stem (16) at a distal end thereof for connection to a catheter (50), and an interior chamber (18). The housing includes a pair of recesses (28) along both sides thereof between the distal end and a proximal port end (24), where the recesses facilitate pushing the assembly by the practitioner into a subcutaneous pocket (104) of a patient (100) for implantation into the pocket.

WO 2009/108669 A4

TITLE

Venous Access Port Assembly with Push Surfaces

[0001] This relates to the field of medical devices and more particularly to venous access port assemblies.

[0002] Infusion ports for the infusion and/or withdrawal of fluids from a patient are well-known, secured to the proximal end of an implanted catheter. These ports are typically used for drug infusion or small amounts of blood withdrawal, where large flows of fluid are not required. The ports are assemblies of a needle-impenetrable housing with a discharge port in fluid communication with the catheter and the reservoir within the port housing, and provide a subcutaneous self-sealing septum that defines an access site for multiple needle sticks through the covering skin tissue of the patient, through the septum and into the reservoir, without the need to continuously search for new access sites. An example of such a port is disclosed in U.S. Patent Publication No. US 2007/0270770.

[0003] Such a venous access port assembly is implanted subcutaneously in the patient, and the catheter affixed thereto is inserted into the vasculature of the patient. For subcutaneous implanting of the assembly, a pocket is surgically created by the practitioner under the skin of the patient adjacent the incision into the blood vessel where the catheter enters the vessel. Some such ports are known to be provided with shovel-like protuberances on their proximal ends, opposite the discharge port, that assist in creating the subcutaneous pocket when urged into the incision into the skin in a direction away from the incision into the blood vessel through which the catheter enters the blood vessel.

[0004] It is desired to provide a venous access port that is easy to insert into the subcutaneous pocket.

[0005] Briefly, the present invention is a venous access port assembly that is shaped and configured to facilitate grasping thereof in a manner to urge a proximal end of the assembly into the subcutaneous pocket. In a preferred embodiment, the housing includes a pair of large, shallow recesses on opposite sides thereof into which the thumb and forefinger of a hand of a practitioner easily fit to push the proximal end of the venous access port assembly into the pocket, with proximal surfaces of the recesses conveniently serving as push surfaces. Additional advantages are that the surfaces facilitate attachment of the catheter to the port, and, after port implantation into a patient, that the surfaces facilitate palpation and septum location.

[0006] The accompanying drawings, which are incorporated herein and constitute part of this specification, illustrate the presently preferred embodiments of the invention, and, together with the general description given above and the detailed description given below, serve to explain the features of the invention. In the drawings:

[0007] Figs. 1 to 3 are isometric, elevation and top views of the venous access port of the present invention;

[0008] Fig. 4 is a longitudinal cross-sectional view of the port of Figs. 1 to 3; and

[0009] Fig. 5 is an isometric view of the port of Figs. 1 to 4, with a catheter (in phantom) affixed to the discharge stem, a subcutaneous pocket into which the port assembly is being urged, and the port assembly being held by a practitioner's hand and being pushed into the pocket by the thumb and forefinger.

[0010] Certain terminology is used herein for convenience only and is not to be taken as a limitation on the present invention. The terms "distal" and "proximal" refer, respectively, to directions closer to and away from the catheter. The terminology includes the words specifically mentioned, derivatives thereof and words of similar import. The embodiment illustrated below is not intended to be exhaustive or to limit the invention to the precise form disclosed. This

embodiment is chosen and described to best explain the principle of the invention and its application and practical use and to enable others skilled in the art to best utilize the invention.

[0011] In accordance with the present invention, a venous access port assembly 10 of the Figures includes a housing 12, a needle-penetrable septum 14, and a discharge stem 16 onto which a catheter 50 is affixable (see Fig. 5) on a distal end of the assembly. An interior chamber 18 is seen in Fig. 4 beneath septum 14 and is in fluid communication with a passageway 20 extending to and through discharge stem 16 for eventual fluid communication with a lumen of the catheter. Housing 12 is of a needle-impenetrable material such as a plastic material like, for example, polysulfone. Septum 14 is preferably of a self-sealing material such as silicone, capable of receiving multiple needle sticks and self-sealing when the needle is withdrawn. Discharge stem 16 preferably is adapted for insertion into the proximal end of catheter 50, with a collar or barb defined along the stem's outer surface to facilitate retention of the catheter thereon. Several vertical suture holes 22 are provided through the housing for suturing of the assembly to the subcutaneous tissue of the patient after insertion of the assembly into the subcutaneous pocket (see Fig. 5).

[0012] Venous access port assembly 10 is shown to have a proximal end 24 that is shaped into a shovel-like protuberance 26 extending horizontally from the base of the housing. The assembly further includes a pair of recesses 28 on opposite sides of the housing 12, with the recesses including proximal surfaces 30 that will serve as push surfaces.

[0013] In Figure 5, a patient 100 is receiving the venous access port assembly/catheter assembly 10,50. An incision 102 has been made into the skin of the patient, and the catheter 50 is already placed into the vasculature of the patient. A pocket 104 is being created by the practitioner at incision 102, and the port assembly 10 is being urged into pocket 104 by a practitioner 106. It can be seen that the shovel-like protuberance 26 is being urged first into the pocket and actually assists in enlarging the pocket to an appropriate snug size just large enough for containing the port

assembly. The thumb and forefinger of practitioner 106 are seen placed in the recesses 28 of port assembly 10 and are urging against proximal recess surfaces 30 (Fig. 1) toward pocket 104.

Additional advantages are that the surfaces facilitate attachment of the catheter to the port, and, after port implantation into a patient, that the surfaces facilitate palpation and septum location.

[0014] Other arrangements to assist the practitioner may be devised such as recesses that are angled downwardly and proximally, and/or housing surface features on both housing sides facilitating pressing of the port assembly toward and into the pocket by the thumb and forefinger of the practitioner. It will be appreciated by those skilled in the art that changes could be made to the embodiments described above without departing from the broad inventive concept thereof. It is understood, therefore, that this invention is not limited to the particular embodiments disclosed, but it is intended to cover modifications within the scope of the present invention as defined by the appended claims.

CLAIMS

What is claimed is:

1. A venous access port assembly, comprising a housing including a septum affixed thereto and a discharge stem at a distal end of the housing for being connected to a catheter proximal end, the discharge stem defining a longitudinal axis of and through the access port assembly, a pair of recesses along sides thereof adapted to receive thereinto portions of a thumb and forefinger of a practitioner's hand, and a single chamber in fluid communication with a passageway through the discharge stem, the chamber being needle-accessible through the septum, wherein the housing includes a pair of opposed side walls and a proximal end wall, characterized in that:

the central portion of the housing's proximal end wall tapers downwardly and proximally to form a shovel-like protuberance at the center of its proximal end, and

the housing side walls each include a said recess thereinto between a proximal end of the housing and its distal end for assisting the practitioner in pushing the assembly proximally for facilitating entry of the shovel-like protuberance into a subcutaneous pocket for subcutaneous implantation of the assembly into a patient, said recess extending from a bottom of the housing to an intermediate point between the bottom of the housing and a top of the housing.

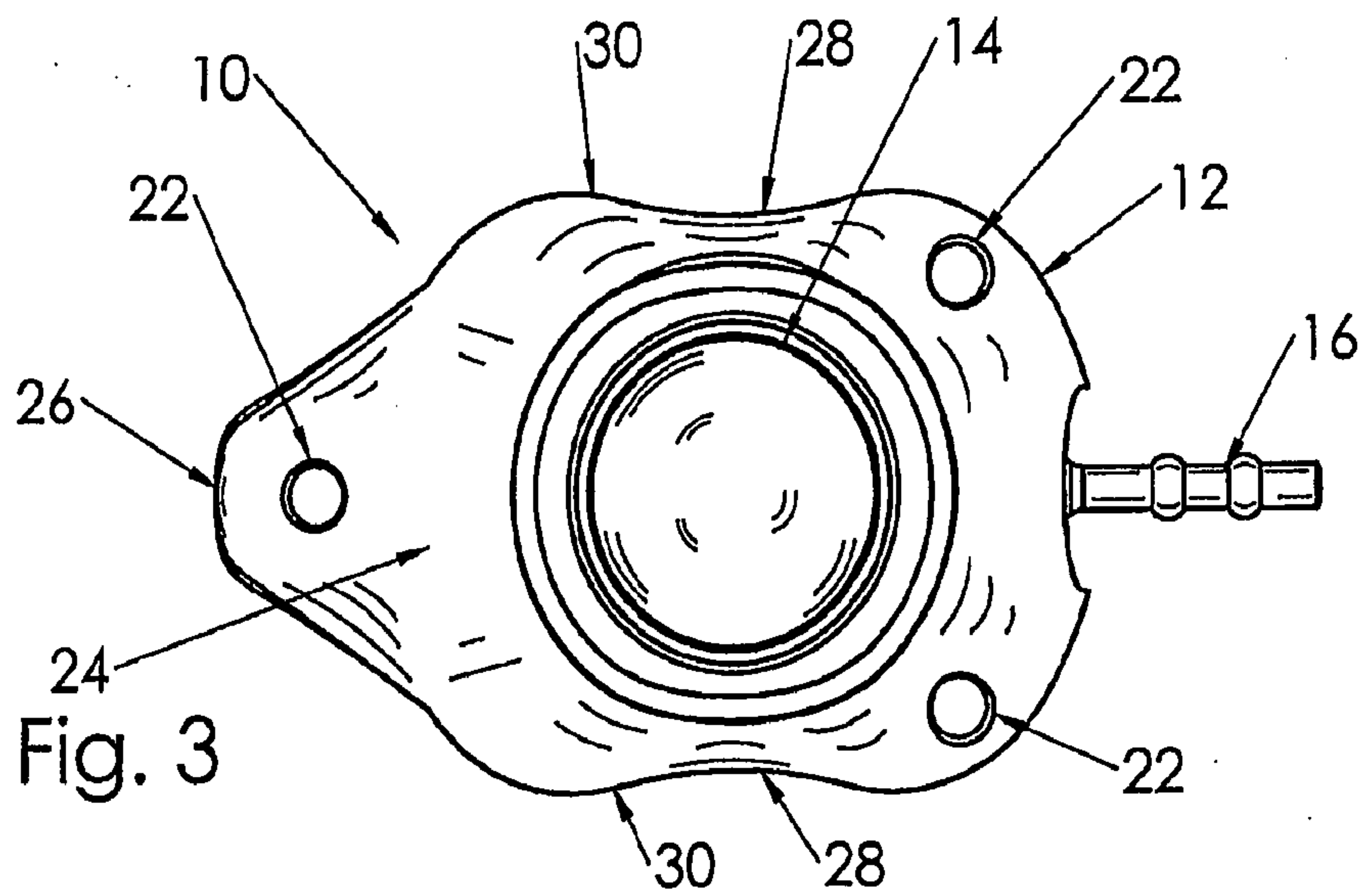
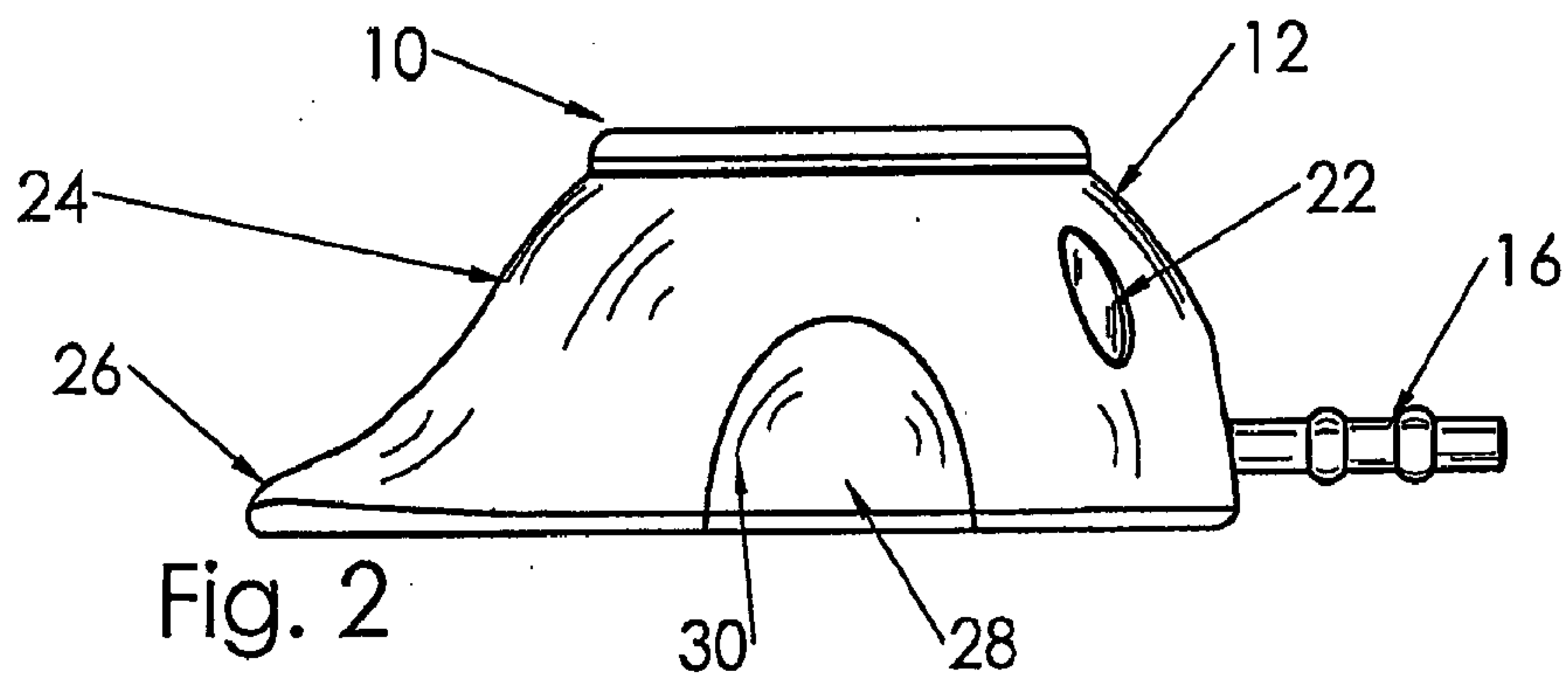
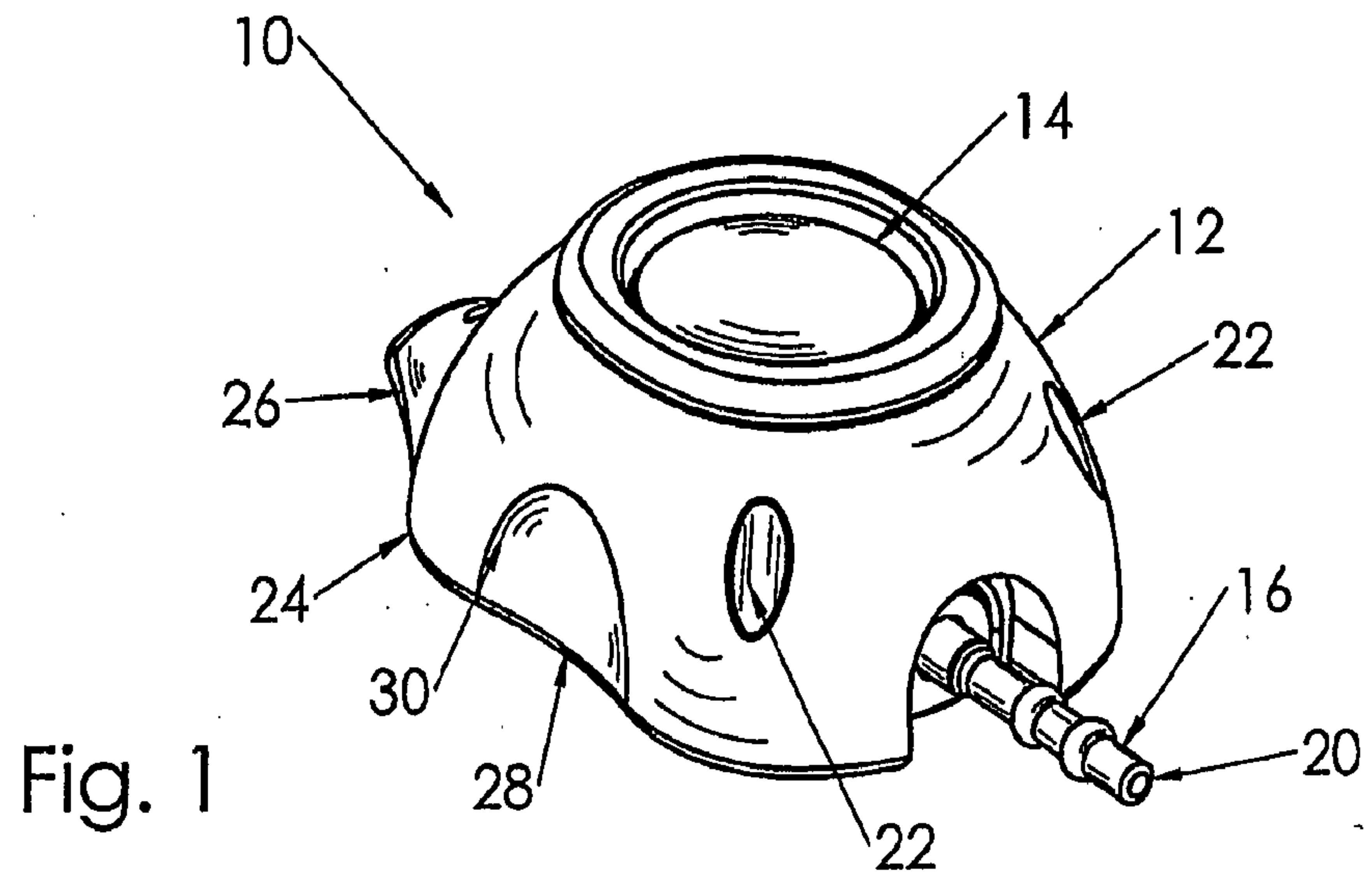
2. The port assembly of claim 1, wherein the recesses define push surfaces at proximal portions thereof.

3. The port assembly of claim 1, wherein each of the pair of recesses forms a semi-circular indentation in the side wall or a semi-oval indentation in the side wall.

4. The port assembly of claim 3, wherein each of the pair of recesses is oriented vertically relative to the longitudinal axis.

5. The port assembly of claim 1, wherein each of the pair of recesses is oriented vertically relative to the longitudinal axis.

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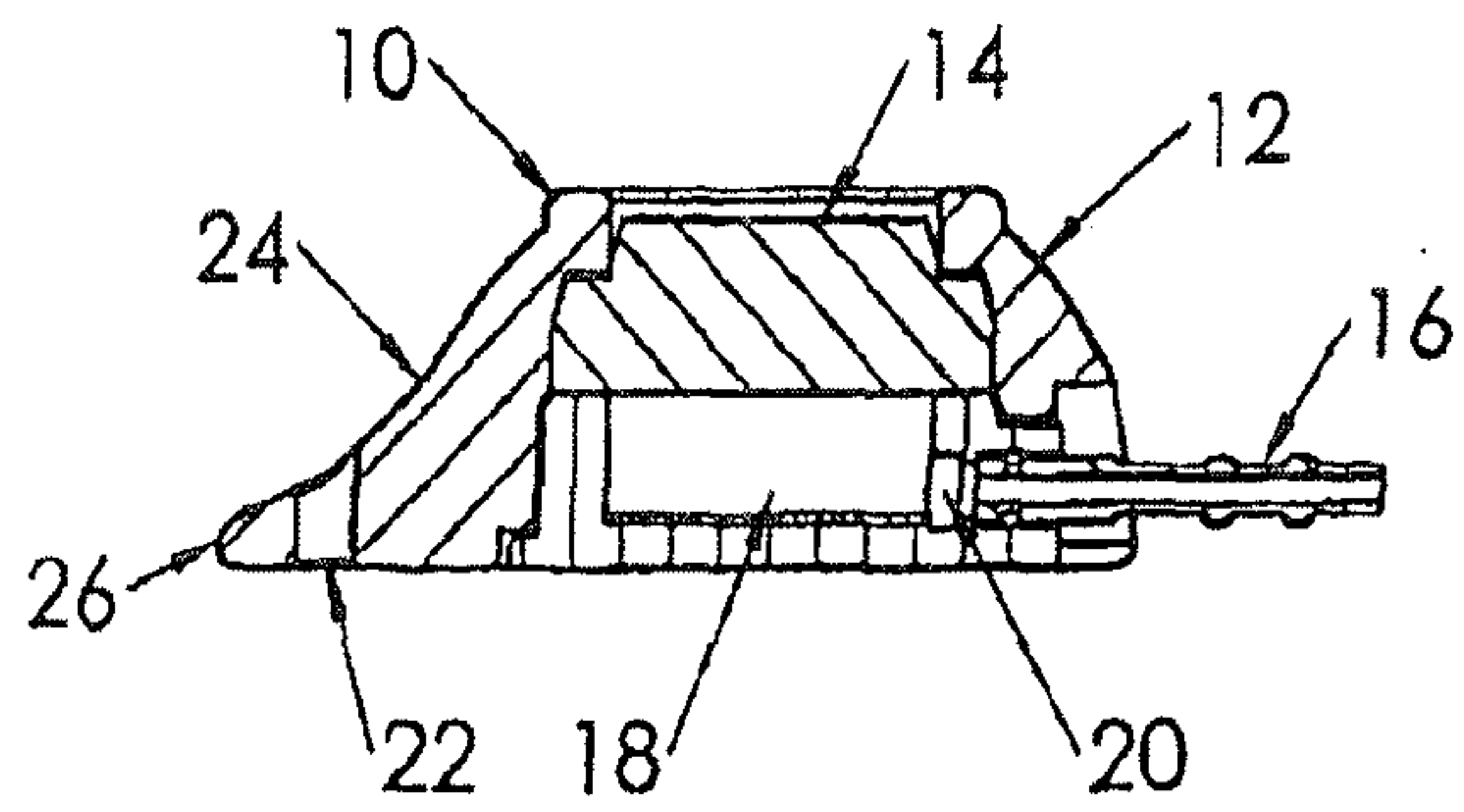


FIG. 4

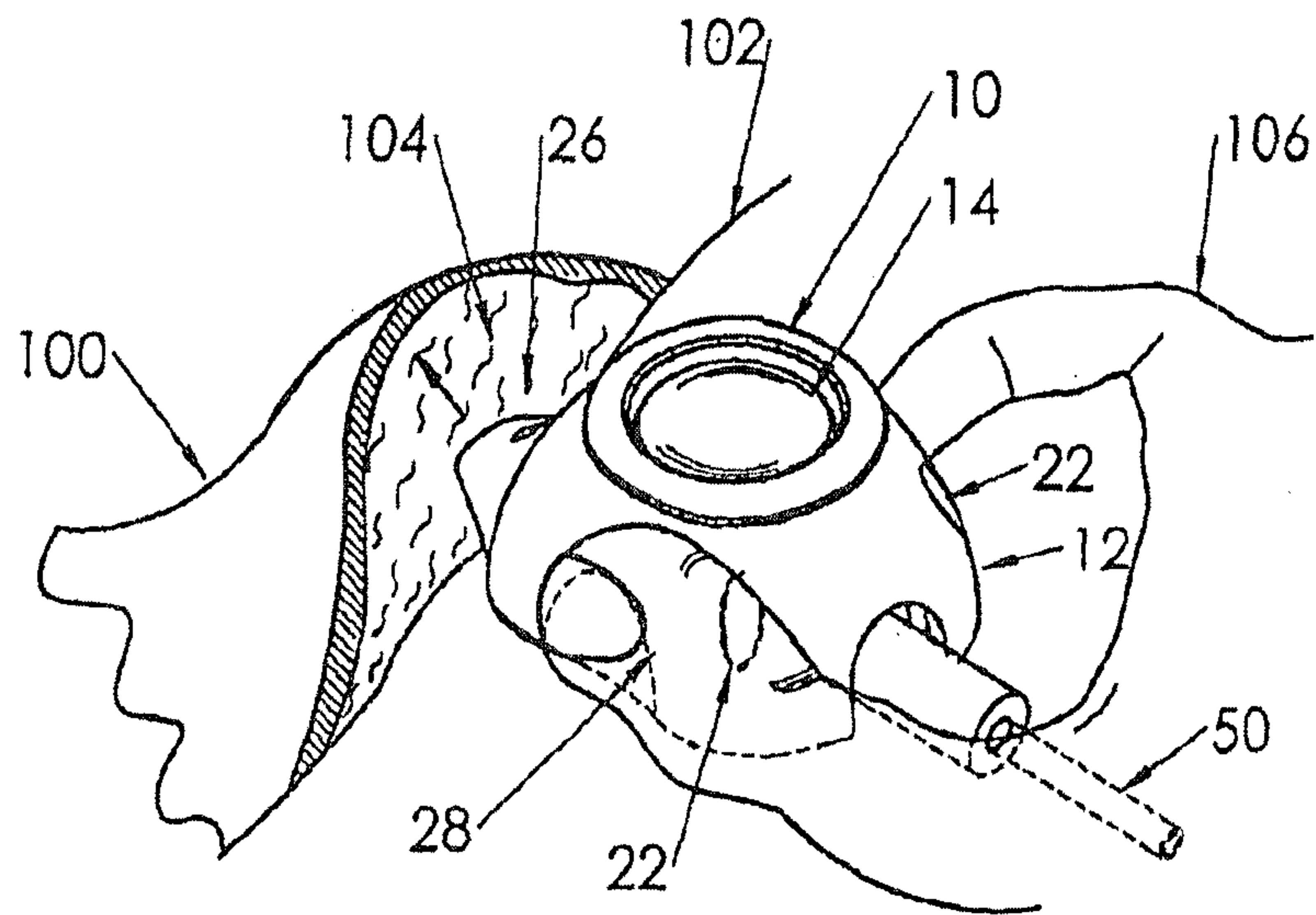


FIG. 5

